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E-participation – a Key Factor in Developing Smart Cities

Cătălin I. Vrabie¹, Andreea-Maria Tîrziu²

Abstract: A main feature of smart cities is the use of ICT in all aspects of city life. In this regard, e-participation is a core element in the process of developing communities “ruled” by socially inclusive governance. **Objectives:** This paper aims to present a framework on how e-participation can be inclusive and how it might bring citizens closer to the idea of living in a smart city, by giving European reality examples regarding this concept. **Prior Work:** It shows the literature that concentrates on e-participation, focusing on citizens’ needs and requirements. **Approach:** The main methods employed for this research were some case studies on European examples of e-participation. **Results:** This type of participatory relationship is starting to transform all public institutions, changing their culture – from one control-based to one performance-centered. ICT is starting to play an important role in smart cities’ evolution and it brings an improvement in the government-citizens relationship. **Value:** We have identified that although technology is a main e-participation element, there should also be considered the capability and willingness of citizens and public institutions to collaborate, not only by electronic means, but also through traditional ways of participating in the process of taking decisions.

Keywords: e-participation; smart cities; inclusive relationship; public sector; technological development

1. Introduction

A smart city should be understood far beyond the use of ICT, it being more than just a simple city which makes use of modern digital technologies. We should therefore understand that giving citizens the possibility to participate online in the city’s managing activities is an important element of what makes a city smart, not only from a technological point of view, but mainly because this type of city listens and tries to meet the needs and requirements of the individuals that are living in that particular place. In this paper, though, we will mainly focus on the technological development which has led, in the last decades, to changes in all aspects of city life. Information and Communication Technologies have transformed even the way individuals understand democracy. Now, we also speak about e-democracy which, through its main pilots, e-participation is also included. This refers to citizen participation and the appropriate technology that supports it. The use of ICT in this context allows more citizens to be participatory actors in the democratic debate, in an online environment, thus the contributions having the possibility to become deeper and wider (Macintosh, 2004, pp. 1-2).

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One of the main European institutions to promote and support initiatives of citizens' electronic political participation is the European Commission which, starting from 2005, has launched The eParticipation Preparatory Action¹ (Website of European Commission). In the period between 2006 and 2008, the EC has been the funder of over 20 projects in this regard, projects that have had as a final scope the e-participation testing at a European level, focusing on different aspects. A part of these projects has ended successfully in 2010/2011, gathering all the aimed information, while other e-participation projects have failed in achieving the data needed (DG Information Society, Website of European Commission). However, all of them have been helpful in achieving a better understanding of the way and the environment in which this new type of participation functions, also making clear the methodology for reaching wanted outcomes (Lacigova, Maizite & Cave, 2012, pp. 72-73).

Using online methods in the development of the relationship between government and citizens can help the public administration better meet the citizens' needs and requirements, creating a more economically efficient bottom-up approach, thus making all the actors involved in the process of taking decisions be a part of an optimized city, that can be considered a smart city. In governing a smart city, public authorities focus on citizens' participation in the civic affairs' co-creation². In its evolution process, this new type of city's primary objective is to integrate in its structure all the dimensions of human, collective and artificial intelligence (Mitchell, 2007, cited by Sherriff, 2015, p. 3).

2. Theoretical Background

The digital era has transformed our society from an industrial one to one based on knowledge (Stoica, 2000, pp. 42-43). Therefore, considering the rapid ways in which information is shared, public administrations must keep up with these changes (Matei, Săvulescu, 2014, pp. 8-9), the link between citizens and businesses leading to updated expectations regarding both public services' quality, efficiency and transparency, and access to public institutions and information (Website of European Commission).

E-participation is considered to be an essential element for the functioning of a good e-democracy (Interreg IVC project). It helps individuals get involved in politics and in the policy-making process, making this type of processes easier to understand and access, by using electronic means (Website of European Commission).

In 2014, the United Nations have conducted a survey aimed at finding out the level at which the member states' governments use electronic means in their relationship with citizens. In its third chapter, this study emphasizes the three fundamental elements of the e-participation framework, namely (Website of UN PADM – DESA):

- **e-information** → enabling participation by providing citizens with public information and access to information without or upon demand;
- **e-consultation** → engaging citizens in contributions to and deliberation on public policies and services;
- **e-decision-making** → empowering citizens through co-design of policy option and co-production of service components and delivery modalities.

¹ Supported by the European Parliament, co-funded 21 pilots promoting the use of ICT in legislative and decision-making processes within parliamentary and government environments.

² Co-creation means allowing stakeholders participate in the service design process.

3. Developing Smart Cities through E-Participation. Benefits and Drawbacks

Around the world, citizens of today tend to use the Internet in relation to all of their interactions, including the ones that are taking place with their governments. Therefore, we can easily understand that, thanks to ICT, individuals of geographically spread communities have no longer vulnerabilities regarding their connection, e-participation being able to offer citizens a new method to remain active in their government (Erkul, 2014).

As part of e-democracy, e-participation can lead to the creation and/or development of smart cities, its main advantages being the ones described below (Erkul, 2014):

- **greater government transparency** → through open government initiatives, public authorities offer citizens access to government information that was previously unavailable. Through the tools provided, transparency reaches a higher level, thus the citizens' participation being improved and the democratic processes simplified;
- **more focus on citizen needs** → countries improve their online methods of delivering public services in order to meet the citizens' needs and requirements, thus strengthening their e-information, e-consulting and e-decision-making activities;
- **increased citizen involvement** → social media has become a powerful platform of e-participation. Websites such as Facebook, Twitter, YouTube, LinkedIn and MySpace can be used both by individuals to share their views and opinions, and by government officials to provide systematic information updates, official meetings and/or ask for citizens' involvement in activities regarding the local government;
- **improved government responsiveness** → in order to have successful democratic states, governmental authorities must give responses to citizens. For example, public authorities can create Websites on which citizens can start petitions on various issues of interest or they can vote for specific petitions.

In order to have a smart city, in which democracy is at the base of every governing activity, these four pillars of e-participation must be improved, thus both the government policies and the legislative decision-making process will be developed properly, increased online participation allowing individuals to live and prosper in democratic connected communities (Erkul, 2014), the information being shared with a significant reduced cost and in an easier manner (Matei, Săvulescu, 2014, pp. 8-9).

As all things, e-participation too carries along with it risks which can be linked to particular activities mediated through online technologies. Here, we can give as examples the incidental commitments, the possibility to communicate by using anonymous profiles – which can be made brutally, or even the threat of exclusion regarding those persons that have limited access to the Internet or none at all (Stokluska, 2013). Although participating online has become a standard practice in many developed countries, people still have to learn or to be taught how to use the Internet as an instrument for their benefit. Education is a fundamental element in every aspect of life, therefore even in this context, it can easily be understood that the highly educated individuals will be the ones to use ICT for their personal interests, political communications being unable to reach, through online means, the persons less educated (Born).

In the process of creating initiatives in which citizens are involved, or in the one of creating or developing smart cities, technology plays indeed a fundamental role, but the most important aspect

should be helping governments understand and meet citizens' problems and needs. Along with this process, the role that the citizens have regarding public services' delivery can be changed from one of a passive service beneficiary to one of an active informed partner (Sherriff, 2015, pp. 11-13).

4. European Examples of E-Participation

E-participation initiatives that use a Web platform can bring a huge improvement on traditional tools of participation, by means of offering access, transparency and the possibility to interact in real time (Website of EurActiv). An example of such project is OurSpace, which brings the European Union closer to the young generations by improving their role in the European Commission's democratic system through the use of ICT (Website of OurSpace).

The OurSpace project is based on the success of social media, using it for spreading e-participation into two different important directions. Firstly, its format is one of a site for social networking and it includes features generally used amongst young individuals, such as: user's profile, invitations, recommendations, ratings and statistics. Secondly, it is being promoted on sites of social networking which are very popular amid young audiences, such as Facebook and Twitter, the project having its own Android app, Facebook app and also iGoogle gadget, thus facilitating mobile access to the platform (Lacigova, Maizite & Cave, 2012, pp. 74-75).

By having a social media platform integrated in its design, OurSpace determines youth's participation in debates on social and political issues, being more realistic and preventing its main target users from considering the project "old-fashioned" or not very user friendly. Therefore, the project OurSpace demonstrates the fact that e-participation can take place in a convenient environment for all the actors involved in the process, taking into consideration the leading trends of Web 2.0 (Lacigova, Maizite & Cave, 2012, pp. 74-75).

4.1. E-participation in Germany

Since the year of 2005, Germany is the member state of the European Union that has adopted the possibility for citizens to submit online petitions to the German parliament. This is a very easy method of e-participation, all that must be done is to complete an online form and after that the petition can be submitted. Moreover, citizens can participate in online discussions about already published e-petitions, being also able to co-sign a petition (Born).

The cause of the petitions' existence must be of general public interest, regardless of its local, national or international level. In this context, the Internet is used as a network through which young people that are able to vote can be motivated, if they have low interest in issues of politics, thus growing their enthusiasm in regard to problems of European level (Born).

4.2. The Romanian reality regarding e-participation

In this subsection, we chose to mention a particular case of the Romanian reality, namely the initiative of Brasov's city hall to promote the concept of e-participation, through increased interaction between the public sector and the citizens, interaction possible through the use of ICT. Therefore, by using electronic means, the city hall provides individuals with administrative services, this leading to the creation of benefits for both citizens and businesses – these being the final service users, and for the public administration (Vrabie, 2015, pp. 33-39).

The outcomes of the project entitled "Brasov's city hall at a click away" are the following (Vrabie, 2015, pp. 33-39):

- **a Web portal** → that integrates different software applications of the city hall, giving citizens access to information in a more easy, fast and cheap way;
- **an automatic call center** → which provides citizens with information by phone without being necessary a human intervention, allowing them to be informed in real time by checking the city hall's databases;
- **an electronic payment system** → which offers citizens the possibility to pay off debts to the local budget faster, easier and in a more comfortable way, and also gives them access to relevant information on local taxes.

Among the benefits that the project brings with it, we can mention its contribution to growing the efficiency of the city hall's internal activities, through the use of specific ICT means and, more precisely, by implementing a centralized system of routing for the administrative documents, also ensuring the security of transactions in a centralized way. The project also helps with both increasing the satisfaction of citizens through the transparency that occurs in public services and information delivery, and with providing equal access to all users (Vrabie, 2015, pp. 33-39).

5. Conclusions

The youth is an important part of the society, it being the element which uses to a higher extent ICT in all aspects of life, especially regarding activities of personal interest. The younger persons form the society based on performance and information usage, thus they should mainly be the ones that the e-participation initiatives focus on. Nevertheless, no citizen, young or elder, should be put aside from being a beneficiary of this type of initiatives because, in order to conduct a proper e-democracy, the state must involve in the policy and decision-making processes all the citizens with the right to vote, by offering them equal access to public information, giving them the possibility to interact in a faster, easier and cheaper way with public authorities and also to have an impact on their activities.

Through its participation, the information society has a high potential to be an innovative society, with communities more active, better informed and more interconnected. The need to provide opportunities for increased awareness and access to multimedia and online technologies is increasing and must be met in such a manner that no individual is at disadvantage.

To conclude, it must be mentioned that an informed society means a strong society, a society able to participate in the achievement of a true democracy. Through its participation, the society can help authorities to meet the public administration's general objective, namely to respond to citizens' needs and requirements. By e-participating, citizens also offer support to public authorities in order for them to carry out their duties in a more efficient manner, thus creating a closer relationship between all actors involved. This all results in a more uniform and thus more powerful state on a regional, local and national level, a state in whose composition we can encounter smart cities.

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